I claim:

1. A method of synchronizing a watermark detector operating on a watermarked image, the method comprising:

using an estimate of affine geometric distortion parameters to transform an image

5   block in the watermarked image to a position approximating an original orientation of the image block in the watermarked image;

shifting the transformed image block to neighboring locations;

computing correlation between the transformed image block and a watermark signal, including computing correlation between the watermark signal and the

10   transformed image block shifted to each of the neighboring locations to create a correlation surface;

finding a correlation maximum in the correlation surface;

computing an offset value from the correlation maximum;

adjusting the watermarked image data by the offset value; and

15   decoding a watermark message from the watermarked image adjusted by the offset value.

2. The method of claim 1 including repeating the process of claim 1 for blocks in the watermarked image;

20   fitting a curve to the offset values of blocks in the image; and

using the curve to align image data in the watermarked image before decoding the watermark message from the watermarked image.

3. A computer readable medium on which is stored instructions for performing

25   the method of claim 1.

4. A method of synchronizing a digital watermark detector comprising:

dividing a watermarked signal into blocks, each block including a portion of a watermark signal;

for each block, computing a local correlation space comprising a neighborhood of correlation values by correlating the watermarked data in the block with a known watermark signal at a neighborhood around the block;

finding a correlation maxima in the local correlation space for each block, where 5   the correlation maxima indicates a local offset used to align the watermarked data in the block before decoding a watermark message from the block.

5. The method of claim 4 further including:

performing curve fitting on the local offsets for the blocks to compute refined 10 offsets.

6. The method of claim 5 wherein the curve fitting weights local offsets based on the corresponding correlation maxima values.

15 7. The method of claim 4 wherein the correlation maxima are used to indicate which portions of the watermarked signal have reliable watermark message data, such that watermark message decoding is performed selectively from blocks that have higher correlation maxima.